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(54) Thin-film having large kerr rotation angle and production process thereof.

(57) A thin film having a large high Kerr rotation angle is formed of a compound having a composition represented by the following formula (I):

$$J_x L_y Q_{(100-x-y)}$$

wherein

at least one of F, Cl, Br and I; J:

at least one of B, C, Al, Si, P, As, Sb, Bi, Se, Te, Ti, L:

V, Cr, Mn, Ni, Ga, Ge, Zr, Nb and Mo;

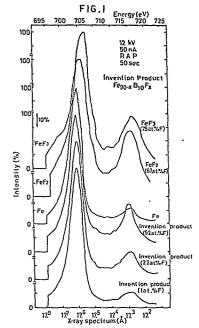
Q: at least one of Fe and Co;

a value of 3 - 80; and x:

a value satisfying the following equation (II): у:

 $3 \le x + y \le 80$

The film is produced by reacting a halogen or halogencontaining gas, which has occurred as a result of decomposition of a halogen compound, with a metal plasma or halogencontaining metal plasma and allowing the resultant componed to deposit as a thin film on a substrate.



(1)



EUROPEAN SEARCH REPORT

Application Number

EP 87 10 9803

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Category	Citation of document with ind of relevant pass		Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
χ	US-A-3 572 894 (H. * Claim 1; column 4, column 5, lines 18-1	GUGGENHEIM et al.) lines 41-68;	1,3	H 01 F 10/18 G 02 F 1/00 G 11 B 11/10
P, X	PATENT ABSTRACTS OF 288 (E-542)[2735], 1 & JP-A-62 86 807 (RE JAPAN) 21-04-1987 * Abstract *	7th September 1987;	1,3	
				TECHNICAL FIELDS SEARCHED (Int. Cl.4) H 01 F G 02 F
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X: pa X: pa de A: te O: n P: in	The present search report has been drawn up for all claims			
	Place of search	Date of completion of the search	i	Examiner
THE HAGUE CATEGORY OF CITED DOCUMENTS X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background		E: earlier pate after the fil other D: document o L: document o	VITZTHUM N.A. T: theory or principle underlying the invention E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons &: member of the same patent family, corresponding	